

CLASS : XIIth

DATE :

SUBJECT : CHEMISTRY

DPP NO. : 1

Topic :-HYDROGEN

- On bubbling CO_2 through a solution of barium peroxide in water:
a) O_2 is formed b) H_2CO_3 is formed c) H_2O_2 is formed d) H_2 is formed
- The most reactive state of hydrogen is:
a) Atomic hydrogen b) Heavy hydrogen c) Molecular hydrogen d) Nascent hydrogen
- The number of protons, electrons and neutrons respectively in a molecule of heavy water is:
a) 10, 10, 10 b) 8, 10, 11 c) 10, 11, 10 d) 11, 10, 10
- Ordinary hydrogen is a mixture at:
a) 75% ortho H_2 + 25% para H_2
b) 25% ortho H_2 + 75% para H_2
c) 50% ortho H_2 + 50% para H_2
d) 99% para H_2 + 1% ortho H_2
- Heavy water freezes at:
a) -3.8 C b) 3.8 C c) 0 C d) 3.2 C
- The electronic configuration of deuterium is:
a) $1s^2$ b) $1s^1, 2s^2$ c) $1s^2, 2s^1$ d) $1s^1$
- Smell of H_2O_2 resembles:
a) Alcohol b) Alkali c) Nitric acid d) Chloroform
- Hydrogen produced in contact with substance which is to be reduced is:
a) Ortho H_2 b) Para H_2 c) Active H d) Nascent H
- H_2O_2 acts as an oxidizing agent in:
a) Neutral medium
b) Acidic medium
c) Alkaline medium
d) acidic as well as in alkaline medium
- The concentration of H_2O_2 solution of '10 volume' is
a) 30% b) 3% c) 1% d) 10%

11. Water possesses a high dielectric constant, therefore
- a) It always contains ions
 - b) It is universal solvent
 - c) Can dissolve covalent compounds
 - d) Can conduct electricity
12. Tailing of mercury is a laboratory test for:
- a) O_3
 - b) Hg
 - c) Cl_2
 - d) O_2
13. Which method cannot be used to remove hardness of water?
- a) Clark's method
 - b) By adding washing soda
 - c) Calgon process
 - d) Filtration
14. Which of the following could act as a propellant for rockets?
- a) Liq. H_2 +Liq. O_2
 - b) Liq. N_2 +Liq. O_2
 - c) Liq. H_2 +Liq. N_2
 - d) Liq. O_2 +Liq.Ar
15. When electric current is passed through an ionic hydride in the molten state,
- a) Hydrogen is liberated at the cathode
 - b) Hydrogen is liberated at the anode
 - c) Hydride ion migrates towards cathode
 - d) No reaction takes place
16. Deuterium was discovered by:
- a) Urey
 - b) Aston
 - c) Rutherford
 - d) Chadwick
17. The percentage by weight of hydrogen in H_2O_2 is:
- a) 50
 - b) 25
 - c) 6.25
 - d) 5.88
18. Ortho and para-hydrogen differ in the:
- a) Number of protons
 - b) Molecular weight
 - c) Nature of spins of protons
 - d) Nature of spins of electrons
19. Decomposition of H_2O_2 is retarded by:
- a) Acetanilide
 - b) Alcohol
 - c) H_3PO_4
 - d) All of these
20. Heavy water possesses:
- a) Insoluble impurities like silica
 - b) Impurities like carbonates and bicarbonates of calcium and magnesium
 - c) High density and different physical properties than those of water
 - d) The capacity to expedite the rate of nuclear reactions